

It should be understood that steps 42 and 52, respectively, regarding encryption of the data provide increased security for the SA table, but are not a requirement of the invention.

Alternative embodiments of the invention may be implemented in any computer readable program language, whether it be conventional or object oriented, or alternatively using discrete components, integrated circuitry, programmable logic, microprocessors or any combination thereof. A computer program product implementation may include a series of computer instructions fixed either on a tangible medium, such as a computer readable media (e.g. diskette, CD-ROM, ROM or fixed disk), or fixed in a computer data signal embodied in a carrier wave that is transmittable to a computer system via a modem or other interface device, such as a communications adapter connected to a network over a medium. The medium may be either a tangible medium (e.g., optical or analog communications lines) or a medium implemented with wireless techniques (e.g. microwave, infrared or other transmission techniques). The series of computer instructions embodies all or part of the functionality previously described herein with respect to the system. Those skilled in the art should appreciate that such computer instructions can be written in a number of programming languages for use with many computer architectures or operating systems. Furthermore, such instructions may be stored in a memory device, such as semiconductor, magnetic, optical or other memory devices, and may be transmitted using any communications technology, such as optical, infrared, microwave, or other transmissions technologies.

Having described various embodiments of the invention, it is understood that the present invention should not be limited to any specific disclosure herein, but rather is embodied in the spirit and scope of the claims attached hereto.

What we claim is:

1. A method for preserving security associations between at least two entities includes the steps of:
 - maintaining a security association relating to communication between the at least two entities in a table, and periodically storing the security association in non-volatile storage.
2. The method according to claim 1, further comprising the step of encrypting the security association prior to periodically storing the security association in the non-volatile storage.
3. The method according to claim 1 wherein the step of periodically storing includes the step of detecting a trigger event.
4. The method according to claim 3 wherein the step of detecting a trigger event includes the step of detecting a change in the security association.
5. The method according to claim 1 further comprising the step of updating the contents of the table using the security association stored in non-volatile storage.
6. A method for maintaining security associations between a server and a member, the method comprising the steps of:
 - generating a security association permitting communication between the server and the member;
 - storing the security association in a location available to the server;
 - periodically storing the security association in a non-volatile memory; and
 - retrieving the security association from the non-volatile memory in the event that the security association becomes unavailable to the server.

7. The method of claim 6, further comprising the steps of encrypting the security association prior to the step of periodically storing the security association in the non-volatile memory.
8. The method of claim 6, wherein the step of periodically storing the security association includes the step of detecting a trigger event.
9. The method of claim 8, wherein the step of detecting the trigger event includes the step of detecting a new security association between the server and the member.
10. An apparatus for preserving security associations between at least two entities comprises:
 - a first table for storing a security association related to communication between the at least two entities;
 - a non-volatile memory including a second table for storing at least a portion of the first table; and
 - means for periodically copying the at least a portion of the first table to the second table.
11. The apparatus of claim 10, further comprising means for encrypting the at least a portion of the first table prior to copying the at least a portion of the first table to the second table.
12. The apparatus of claim 10 further comprising means for copying overwriting the at least a portion of the first table with contents of the second table.
13. The apparatus of claim 10 including encryption logic for encrypting the at least a portion of the first table.
14. The apparatus of claim 10 including decryption logic for decrypting the second table.
15. The apparatus of claim 10 further comprising a key, stored in non-volatile memory, for encrypting the at least a portion of the first table.